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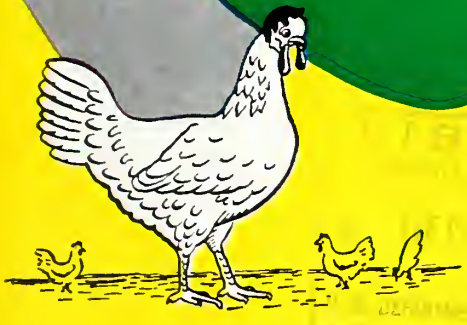
LEAFLET NO. 393

Cecal Coccidiosis of Chickens

HOW TO CONTROL IT



U. S. DEPARTMENT OF AGRICULTURE

Cecal Coccidiosis of Chickens

HOW TO CONTROL IT

Cecal coccidiosis is a common and serious disease of chickens. This disorder of the ceca (or blind guts) is caused by one species[1] of coccidia, which are microscopic parasites.

The disease occurs in all parts of the United States. It may strike at any time of year, but it is most prevalent in warm, wet weather.

It is primarily a disease of chicks less than 2 months old, but chickens of any age may get it.

WHAT IT DOES

It is estimated that cecal coccidiosis causes poultrymen in the United States to lose about $14 million every year.

In a severe outbreak, the disease can kill most of the chickens in a brood or flock. Even in a mild outbreak, some chickens die of it. Those that get the disease but do not die may recover slowly.

The parasites that cause the disease get into the cells of the cecal lining, live at the expense of the cells, and eventually destroy them. A large amount of blood oozes from the blood vessels in the cecal lining and is passed out with the droppings.

HOW CHICKENS GET IT

The parasites are passed in the droppings of infected birds. They must go through a "ripening" process before they become infective. Other chickens pick up these infective coccidia from soil, litter, water, or feed that has been contaminated by the droppings.

Droppings that contain coccidia may infect another chicken months later. Coccidia may be infective 1 year or longer after they are passed. They are carried on the bodies of wild birds, animals such as rats and mice, and insects such as flies; the attendant may carry them on his hands or clothing; they may also be carried on crates.

Not every chicken that picks up coccidia gets a recognizable case of the disease. Some pick up only enough to cause a light infection; these may never be noticeably sick. However, a

[1] *Eimeria tenella.*

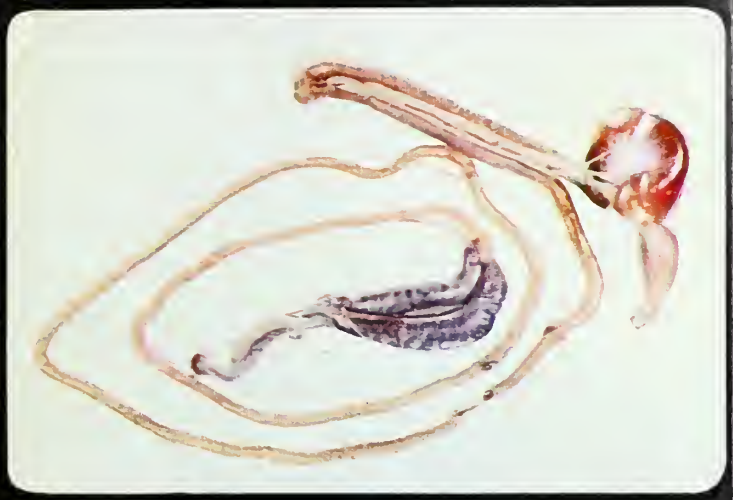


Figure 1.—Intestinal tract of a chicken showing appearance of ceca 8 days after infection by parasites that cause cecal coccidiosis. The ceca are in the center of the photograph. (NEG. 13960AC)

Figure 2.—One of the ceca shown in figure 1 has been slit open to show the cheeselike bloody material inside. (NEG. 13961AC)

chicken that has even a light infection can infect other chickens.

A light infection usually does little or no harm. On the contrary, it helps the bird to build up resistance to the disease. Later on, if the chicken picks up large numbers of the coccidia that cause cecal coccidiosis it will be less severely affected than it would be otherwise.

SIGNS OF THE DISEASE

Cecal coccidiosis strikes suddenly and takes its toll quickly.

Symptoms

A typical outbreak presents the following picture:

- Some chickens die suddenly.
- There are bloody droppings on the ground or litter. The chickens that are passing the bloody droppings may have blood on the feathers around the vent.
- Affected chickens have a ruffled, droopy appearance; they may squat in one place all day, with head drawn back against the body, or tucked under a wing. They have pale combs and skin. They eat and drink little or nothing.
- Other chickens in the brood or flock appear healthy.

Examining the ceca

To examine the ceca, take one of the dead chickens or kill one of the sickest ones. Cut through the skin just below the breastbone, then back along each side of this bone. Pull the overlying intestine out and to one side, to lay bare the two cecal pouches. Slit one of these pouches lengthwise.

If the chicken had cecal coccidiosis, the ceca will be noticeably enlarged and of an abnormal color—dark red or yellowish.

If the chicken is killed during the period of greatest bleeding, the outside of the ceca will be a dark, bloody red (fig. 1); the inside will be filled with cheeselike bloody material (fig. 2).

If the chicken is killed later in the course of the disease, the outside of the ceca will be yellowish; the inside will be filled with a yellowish, cheeselike substance, which is spotted with bloody areas.

WHERE TO GET A DIAGNOSIS

Unless you have had outbreaks diagnosed as cecal coccidiosis before, and are sure from an examination of the ceca that this is the same disease, take or send two or three of your sick chickens to the nearest poultry-diagnostic laboratory.

At such a laboratory, poultry-disease experts will examine the chickens for the presence of the parasite. They will tell you whether the chickens have cecal coccidiosis or some other disease.

If you do not know where to take or send the sick chickens for a diagnosis, ask your county agent or a veterinarian.

If you ship chickens for diagnosis, do not send the most sickly ones. They are likely to be dead on arrival. Decomposition sets in very rapidly after the death of the bird, making diagnosis of the disease difficult.

HOW TO HANDLE AN OUTBREAK

As soon as you are reasonably sure the disease is cecal coccidiosis, begin treating the chickens that appear healthy. If you must wait several days for a report from a laboratory, begin treatment anyway. You will do the chickens no harm.

Take the following steps:

1. Remove all obviously sick chickens from the flock. Put them in a separate pen, where they will have a better chance to get food and water and will not infect other chickens. If they have cecal coccidiosis, the disease will take its course; there is no medicine that will cure a seriously sick bird.

2. Dose the remaining chickens with sulfamethazine, sulfaquinoxaline, or sulfaguanidine. You can usually buy these drugs at stores or mills that sell chicken feed; some drug stores also carry them.

Prepare and administer the drug exactly according to the directions that come with it. If you give more than the amount recommended, you will harm the chickens; if you give less, the drug will do little good.

Do not feed a flushing mash. It increases the amount of water in the droppings and keeps the litter wet.

3. Keep the litter dry; stir it frequently. Remove all wet litter and replace it with dry material. Repair or replace waterers that leak.

By keeping the litter dry, you help prevent many of the coccidia from becoming infective. These parasites need moisture for their development.

By stirring the litter, you help keep it dry and turn under many of the coccidia.

4. Burn all dead chickens. Burn the litter that you remove, or put it where it will never be accessible to other chickens.

5. Be careful not to carry the infection to other broods or flocks. If you tend both sick and well chickens, tend the well ones first; do not go from a pen of sick chickens to a pen of well ones. It is a good idea to wear overshoes or rubbers when you go into a pen of sick chickens and to remove them when you come out.

PREVENTIVE MEASURES

The best way to cope with cecal coccidiosis is to prevent it. Constant good management is the chief preventive measure. This can be supplemented by well-timed administration of preventive drugs.

Good management

Because the parasites that cause this disease are widespread, abundant, long lived, and hard to kill, it is not likely that you can keep your poultry houses and yards free of them. But you can reduce their number and lessen the chances that your chickens will pick up enough to cause the disease.

- Raise young chickens apart from old stock. Older chickens that appear healthy may be passing the parasites in their droppings.
- Put each new brood of chickens into a clean house. Wash all feeders and waterers in boiling-hot water. Put in only clean, new litter.
- Keep litter dry. Stir it frequently. Remove wet litter.
- Place waterers on wire platforms over floor drains. Raise feeders high enough to prevent chickens from fouling them. Supply enough feeders to allow all chickens to feed at the same time without crowding.
- Clean feeders and waterers with hot water and detergent every week, or oftener if they become soiled.
- If you raise chicks on wire, clean the wire regularly. Properly managed, chicks raised on wire are not likely to pick up many coccidia.
- Get rid of flies, rats, and mice around poultry houses and yards.
- Fill in or drain any damp areas around the poultry house.

Medication

You can reduce chances of chickens' developing severe coccidiosis by dosing them with a preventive drug for several weeks, beginning at the time you place them on the ground or floor. While a chicken is receiving the drug it may develop a light infection, which will build up its resistance to the disease.

Administer sulfamethazine, sulfaquinoxaline, sulfaguanidine, nitrofurazone, or nitrophenide in the feed or drinking water. Prepare and administer the drug exactly according to the directions that come with it.

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